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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,268	11/25/2003	Christiaan Steenberg	DC-05754	6368
33438	7590	08/22/2006	EXAMINER	
HAMILTON & TERRILE, LLP P.O. BOX 203518 AUSTIN, TX 78720			GIESY, ADAM	
			ART UNIT	PAPER NUMBER
			2627	
DATE MAILED: 08/22/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/722,268	Applicant(s) STEENBERGEN ET AL.	
	Examiner Adam R. Giesy	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-12, and 14-20 is/are rejected.
- 7) ☒ Claim(s) 3 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the 'first and second recording layers with the first set and second set of embedded information (respectively) wherein the second layer is aligned to substantially overlap with the first set of information,' 'the mixed signal comprising a bar coding,' and 'the embedded information comprises eight repeated subsets distributed around a portion of the circumference of the optical medium' must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 'radius **31**' as described on page 6, line 19 of the instant specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2, 6-8, 10-11 and 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Tomita (US Pat. No. 6,977,880 B2).

Regarding claim 1, Tomita discloses an optical medium disc for storing information readable by an optical disc drive, the optical medium disc comprising: a first layer having reflective properties, the first layer operable to store information through manipulation of the reflective properties by a laser (see Figure 7, '1st Recording Layer'); a second layer disposed over the first layer (Figure 7, '2nd Recording Layer'); a first set of embedded information stored at the first layer within a first range of radii of the optical medium (element 22); and a second set of embedded information stored at the second layer aligned to substantially overlap the first set of information (element 23).

Regarding claim 2, Tomita discloses all of the limitations of claim 1 as discussed in the claim 1 rejection above and further that the first set of embedded information comprises plural repeated subsets distributed around the entire circumference of the optical medium disc in a data layer (see Figures 4A and 4C, 'SPF Signal'), and the second set of embedded information is distributed over the first set of embedded information around a portion of the circumference of the optical medium disc at the protective layer so that at least one complete subset of the first set of embedded information remains uncovered by the second set of embedded information (see Figure 7, element 23).

Regarding claim 6, Tomita discloses all of the limitations of claim 1 as discussed in the claim 1 rejection above and further that the first set of embedded information comprises a first encoding and the second set of embedded information comprises a second encoding, the first and second sets of information operable to provide a mixed signal to an optical disc drive (see Figure 4C).

Regarding claim 7, Tomita discloses all of the limitations of claim 6 as discussed in the claim 6 rejection above and further that the mixed signal comprises frequency modulation operable to distinguish between the first and second sets of embedded information (as shown in Figure 4C).

Regarding claim 8, Tomita discloses all of the limitations of claim 6 as discussed in the claim 6 rejection above and further that the mixed signal comprises phase encoding operable to distinguish between the first and second sets of embedded information (as shown in Figure 4A).

Regarding claim 10, Tomita discloses all of the limitations of claim 1 as discussed in the claim 1 rejection above and further that the first set of embedded information has first width and the second set of information has a second width so that first set of embedded information is readable under the second set of embedded information (see Figure 7, elements 22 and 23).

Method claims 11, 12, and 16 are drawn to the method of using the corresponding apparatus claimed in claims 1, 2, and 6 (respectively). Therefore method claims 11, 12, and 16 correspond to apparatus claims 1, 2, and 6 (respectively) and are rejected for the same reasons of anticipation (obviousness) as used above.

Regarding claim 17, Tomita discloses an information handling system comprising: components operable to generate information for storage on an optical medium (Figure 2, element 10); an optical drive interfaced with the components and operable to accept the information for storage on the optical medium (elements 5-12); a pick-up head associated with the optical drive and operable to read reflected laser light

from the optical medium (9); and an optical media identification module interfaced with the pickup head and operable to determine identification information read from first and second aligned embedded information areas, the first embedded information area in a first layer of the optical medium, the second embedded information area in a second layer of the optical medium (16 and 17).

Regarding claim 18, Tomita discloses all of the limitations of claim 17 as discussed in the claim 17 rejection above and further that the first embedded information area comprises a data layer between first and second radii and the second embedded information area comprises a protective layer between the first and second radii (as shown in Figure 7).

Regarding claim 19, Tomita discloses all of the limitations of claim 18 as discussed in the claim 18 rejection above and further that the first and second aligned embedded information areas output a frequency modulated mixed signal that the optical media identification module demodulates to read first and second embedded identification information sets (as shown in Figure 4A).

Regarding claim 20, Tomita discloses all of the limitations of claim 18 as discussed in the claim 18 rejection above and further that the first and second aligned embedded information areas output a phase encoded mixed signal that the optical media identification module demodulates to read first and second embedded identification information sets (as shown in Figure 4C).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomita (US Pat. No. 6,977,880 B2) in view of Inokuchi et al. (US Pat. No. 7,039,848 B2).

Regarding claim 4, Tomita discloses all of the limitations of claim 2 as discussed in the claim 2 rejection above. Tomita fails to disclose that the second set of information comprises ink marking.

Inokuchi discloses an optical disc in which multiple sets of information are recorded to the disc, wherein one set of data is recorded on the recording layer which is made of an organic dye (see column 4, lines 39-43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the optical disc as disclosed by Tomita with the organic dye (ink) as disclosed by Inokuchi, the motivation being to create a type of optical disc that is compatible with a multitude of optical disc readers/recorders.

Method claim 15 is drawn to the method of using the corresponding apparatus claimed in claim 4. Therefore method claim 15 corresponds to apparatus claim 4 and is rejected for the same reason of anticipation (obviousness) as used above.

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7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tomita (US Pat. No. 6,977,880 B2) in view of Sako et al. (hereinafter Sako - US Pat. No. 7,031,246 B2).

Regarding claim 5, Tomita discloses all of the limitations of claim 2 as discussed in the claim 2 rejection above. Tomita fails to disclose that the second set of information comprises laser cutting.

Sako discloses an optical disc in which multiple sets of information are recorded to the disc, wherein one set of data is recorded using a laser cutting method (see column 8, lines 33-36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the optical disc as disclosed by Tomita with the laser cutting method as disclosed by Sako, the motivation being to create a type of optical disc that is compatible with a multitude of optical disc readers/recorders.

8. Claims 9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomita (US Pat. No. 6,977,880 B2) in view of Suzuki et al. (hereinafter Suzuki - US Doc. No. 2004/0120236 A1).

Regarding claim 9, Tomita discloses all of the limitations of claim 6 as discussed in the claim 6 rejection above. Tomita fails to disclose that the mixed signal comprises bar coding operable to distinguish between the first and second sets of embedded information.

Suzuki discloses an optical disc in which multiple sets of information are recorded to the disc, wherein one set of data is recorded using a barcode format (see Figure 10A, element 402B).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the optical disc as disclosed by Tomita with the bar coding format for the second data set as disclosed by Suzuki, the motivation being to better enable copyright protection and identification of the disc.

Regarding claim 14, Tomita discloses all of the limitations of claim 11 as discussed in the claim 11 rejection above. Tomita fails to disclose that embedding the first set of information further comprises stamping the first set of information into a data layer.

Suzuki discloses an optical disc in which multiple sets of information are recorded to the disc, wherein one set of data is stamped into the disc (see page 4, paragraph 0063).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the optical disc as disclosed by Tomita with the stamping format for the first data set as disclosed by Suzuki, the motivation being to create a type of optical disc that is compatible with a multitude of optical disc readers/recorders.

Allowable Subject Matter

9. Claims 3 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 3 and 13 are allowable over prior art of record which does not disclose or suggest, alone or in combination, all of the limitations of claims 2 and 12 (respectively) as well as the further limitations that **the first set of embedded information comprises eight repeated subsets distributed around the entire circumference of the optical medium disc and the second set of embedded information is distributed over less than one third of the circumference of the optical medium disc.**

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Ando et al. (US Pat. No. 7,075,877 B2) discloses a recording medium that contains two sets of information.
- b. Sako et al. (US Doc. No. 2004/0087980 A1) discloses a recording medium with two data sets recorded on it.
- c. Sako et al. (US Pat. No. 6,852,383 B2) discloses a recording medium that contains two sets of information.

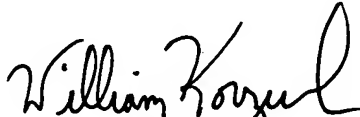
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam R. Giesy whose telephone number is (571) 272-7555. The examiner can normally be reached on 8:00am- 5:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ARG 8/16/2006



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